

06-24-'09 16:27 FROM-TUNG & ASSOCIATES

12485404035

T-900 P02/16 U-378

RECEIVED
CENTRAL FAX CENTER

JUN 24 2009

U.S.S.N. 10/811,621

Claim Amendments

Please amend claims 1, 2, 4-7, 9, 12, 13, 21-24 as follows:

RECEIVED
CENTRAL FAX CENTER

U.S.S.N. 10/811,621

JUN 24 2009

Listing of Claims

1. (currently amended) ~~An electrochemical plating system,~~ A method of electroplating a substrate comprising:

providing a metal electroplating electrolyte solution, said electrolyte solution contained in an electrolyte bath container; and

providing a composition comprising an organic acid and a non-ionic polymer mixed with said organic acid, said non-ionic polymer selected from the group consisting of an alkoxyated alcohol, an alkoxyated amine, and an alkylphenol alkoxyate;

wherein said composition consists of a suspended layer within said electrolyte solution, said suspended layer consisting of a continuous layer extending across a dimension of said electrolyte solution in said electrolyte bath container, said suspended layer of sufficient dimension to form a wetting layer on a substrate as said substrate is passed through said suspended layer into said electrolyte solution, said electrochemical plating system further comprising an anode in said electrolyte

U.S.S.N. 10/811,621

solution to carry out metal electroplating on said substrate comprising said wetting layer;

passing said substrate through said suspended layer into said electrolyte solution to form said wetting layer on said substrate; and

performing said metal electroplating on said substrate in said electrolyte solution.

2. (currently amended) The ~~system~~ method of claim 1 wherein said organic acid is selected from the group consisting of citric acid and acetic acid.

3. (canceled)

4. (currently amended) The ~~system~~ method of claim 1 wherein said composition is present in said electrolyte solution in a concentration of about 5 % by weight.

5. (currently amended) The ~~system~~ method of claim 1 wherein said non-ionic polymer has a molecular weight of less than 1,000.

U.S.S.N. 10/811,621

6. (currently amended) The ~~system~~ method of claim 5 wherein said organic acid is selected from the group consisting of citric acid and acetic acid.

7. (currently amended) The ~~system~~ method of claim 1 wherein said organic acid is present in said composition in a wt.% of about 10, and wherein said non-ionic polymer is present in said composition in a wt.% of about 5.

8. (canceled)

9. (currently amended) ~~An electrochemical plating system, A~~
method of electroplating a substrate comprising:

a copper electroplating electrolyte solution, said electrolyte solution contained in an electrolyte bath container; and

a composition comprising an organic acid and a non-ionic polymer, said non-ionic polymer having a molecular weight of less than 1,000, said non-ionic polymer mixed with said

U.S.S.N. 10/811,621

organic acid, said non-ionic polymer selected from the group consisting of an alkoxylated alcohol, alkoxylated amine, and an alkylphenol alkoxylate, said organic acid selected from the group consisting of citric acid and acetic acid;

wherein said composition consists of a suspended layer within said electrolyte solution, said suspended layer consisting of a continuous layer extending across a dimension of said electrolyte solution in said electrolyte bath container, said suspended layer of sufficient dimension to form a wetting layer on a substrate as said substrate is passed through said suspended layer into said electrolyte solution, said electrochemical plating system further comprising an anode in said electrolyte solution to carry out copper electroplating on said substrate comprising said wetting layer;

passing said substrate through said suspended layer into said electrolyte solution to form said wetting layer on said substrate; and

performing said copper electroplating on said substrate in said electrolyte solution.

U.S.S.N. 10/811,621

10. (canceled)

11. (canceled)

12. (currently amended) The ~~system~~ method of claim 9 wherein said composition is present in said electrolyte solution in a concentration of about 5% by weight.

13. (currently amended) The ~~system~~ method of claim 9 wherein said organic acid is present in said composition in a wt.% of about 10, and wherein said non-ionic polymer is present in said composition in a wt.% of about 5.

Claims 14-16 (canceled)

Claims 17-20 (canceled)

21. (currently amended) The ~~system~~ method of claim 1, wherein said non-ionic polymer is present in said composition in a quantity of from about 0.5 to about 10 wt. %.

22. (currently amended) The ~~system~~ method of claim 1, wherein

U.S.S.N. 10/811,621

said organic acid is present in said composition in a quantity of from about 2 to about 20 wt. %.

23. (currently amended) The ~~system~~ method of claim 9, wherein said non-ionic polymer is present in said composition in a quantity of from about 0.5 to about 10 wt. %.

24. (currently amended) The ~~system~~ method of claim 9, wherein said organic acid is present in said composition in a quantity of from about 2 to about 20 wt. %.

25. (canceled)

26. (canceled)